H-3 IDS mark 5/18/02

Patent
267/173

jc997 U.S. PTO
10/075579
02/12/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: **Elaine Weidenhammer et al.**

Serial No.: Not yet assigned

Filed: Submitted herewith

For: **IMPROVED METHODS FOR GENE EXPRESSION MONITORING ON ELECTRONIC MICROARRAYS**

Group Art Unit: 1656

Examiner: Jeffrey Siew

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Washington, DC 20231

Sir:

In accordance with 37 CFR §§ 1.97 and 1.98, the items identified in this Information Disclosure Statement ("IDS") are brought to the attention of the Office. The items are listed on the attached form PTO-1449. Copies of these items were previously disclosed or previously cited by the Examiner in the parents of the subject application, specifically U.S. Patent Application Serial No. 09/710,200, filed on November 9, 2000, of which this application is a divisional, and U.S. Patent Application Serial No. 09/490,965, filed on January 24, 2000, of which this application is a continuation-in-part.

The items identified in this IDS may or may not be "material" pursuant to 37 CFR § 1.56. The submission thereof by Applicant is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as "prior art" under 35 USC § 102 with respect to this invention unless specifically designated by Applicant as such.

OC-92523.1

CERTIFICATE OF MAILING (37 C.F.R. §1.10)

I hereby certify that I have a reasonable basis to expect that this paper (along with any referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as 'Express Mail - Post Office To Addressee' in an envelope addressed to Commissioner for Patents, Washington, DC 20231.

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Date of Deposit: February 12, 2002

Micheal A. Smith

This IDS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), that is (1) within three months of the filing date of the application, which is not a continued prosecution application filed under § 1.53(d); or (2) within three months of entry of the national stage as set forth in 37 CFR § 1.491; or (3) before the mailing of a first Office action on the merits; or (4) before the mailing of a first Office action after filing a request for continued examination under § 1.114. Thus, no fee is required. However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and charge the fee due under 37 CFR §1.17(p) to the deposit account referenced below.

The Commissioner is authorized to charge any fees required by the filing of these papers, and to credit any overpayment to Lyon & Lyon's Deposit Account No. **12-2475**.

Respectfully submitted,

LYON & LYON LLP

Dated: February 12, 2002

By: _____
Patrick S. Eagleman
Reg. No. 44,665


22249

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Los Angeles, CA 90071

FORM PTO-1449	ATTY. DOC. NO. 267/173	SERIAL NO.
LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	APPLICANT: Elaine WEIDENHAMMER et al	
(Use several sheets if necessary)	FILING DATE: Herewith	GROUP: 1656

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	AA	3,950,738	04/1976	Hayashi et al.	365	185	07/1974
	AB	3,995,190	11/1976	Salgo	313	391	12/1975
	AC	4,283,773	08/1981	Daughton et al.	364	132	04/1979
	AD	4,537,681	08/1985	Elings et al.	436	518	02/1983
	AE	4,563,419	01/1986	Ranki et al.	435	6	12/1983
	AF	4,580,895	04/1986	Patel	356	39	10/1983
	AG	4,584,075	04/1986	Goldstein	204	522	11/1984
	AH	4,594,135	06/1986	Goldstein	204	551	02/1985
	AI	4,683,195	07/1987	Mullis	435	6	02/1986
	AJ	4,751,177	06/1988	Stabinsky	435	6	06/1985
	AK	4,787,963	11/1988	MacConnell	204	450	05/1987
	AL	4,807,161	02/1989	Comfort et al.	364	550	12/1987
	AM	4,816,418	03/1989	Mack et al.	436	518	07/1985
	AN	4,822,566	04/1989	Newman	422	82	05/1987
	AO	4,828,979	05/1989	Klevan et al.	435	6	11/1984
	AP	4,851,331	07/1989	Vary	435	6	05/1986
	AQ	4,908,112	03/1990	Pace	210	198	06/1988
	AR	5,063,081	11/1991	Cozzette et al.	435	4	08/1990
	AS	5,074,977	12/1991	Cheung et al.	205	775	10/1990
	AT	5,075,077	12/1991	Durley, III et al.	422	56	08/1988
	AU	5,096,669	03/1992	Lauks et al.	422	61	09/1988
	AV	5,096,807	03/1992	Leaback	435	6	12/1989
	AW	5,125,748	06/1992	Bjornson et al.	356	414	05/1991
	AX	5,126,022	06/1992	Soane et al.	204	458	02/1990
	AY	5,137,806	08/1992	LeMaistre	435	6	12/1989

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U.S. PATENT DOCUMENTS

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	BB	5,164,319	11/1992	Hafeman et al.	435	287	11/1989
	BC	5,166,063	11/1992	Johnson	435	173	06/1990
	BD	5,200,051	04/1993	Cozzette et al.	204	403	11/1989
	BE	5,202,231	04/1993	Drmanac et al.	435	6	06/1991
	BF	5,219,726	06/1993	Evans	435	6	06/1989
	BG	5,219,727	06/1993	Wang	435	6	09/1989
	BH	5,227,265	07/1993	DeBoer et al.	430	41	11/1990
	BI	5,234,566	08/1993	Osman et al.	204	403	04/1991
	BJ	5,242,797	09/1993	Hirshfeld	435	6	01/1992
	BK	5,262,311	11/1993	Pardee	435	91.2	03/1992
	BL	5,304,487	04/1994	Wilding et al.	435	29	05/1992
	BM	5,312,527	05/1994	Mikkelsen et al.	205	777	10/1992
	BN	5,399,491	03/1995	Kacian	435	91.21	03/1992
	BO	5,433,819	07/1995	McMeen	216	20	05/1993
	BP	5,434,049	07/1995	Okano et al.	435	6	02/1993
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	BR	5,445,525	08/1995	Broadbent et al.	439	64	05/1994
	BS	5,464,517	11/1995	Hjerten et al	204	183	01/1995
	BT	5,468,646	11/1995	Mattingly	436	501	01/1995
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	BW	5,527,670	06/1996	Stanley	435	6	08/1994
	BX	5,545,522	08/1996	Van Gelder	435	6	10/1992
	BY	5,580,726	12/1996	Villeponteau	435	6	04/1994

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U.S. PATENT DOCUMENTS							
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	CA	5,593,838	01/1997	Zanzucchi et al	435	6	05/1995
	CB	5,599,672	02/1997	Liang	435	6	12/1994
	CC	5,605,662	02/1997	Heller	422	68.1	11/1993
	CD	5,632,957	05/1997	Heller et al.	422	68.1	09/1994
	CE	5,643,765	07/1997	Willey	435	91.2	04/1993
	CF	5,653,939	08/1997	Hollis et al.	422	50	08/1995
	CG	5,658,736	08/1997	Wong	435	6	01/1996
	CH	5,660,701	08/1997	Grushka et al.	204	451	02/1996
	CI	5,665,547	09/1997	Pardee	435	6	04/1995
	CJ	5,681,751	10/1997	Begg et al.	436	89	05/1995
	CK	5,700,667	12/1997	Marble	435	91.3	05/1995
	CL	5,707,807	01/1998	Kato	435	6	03/1996
	CM	5,710,029	01/1998	Ryder	435	91.1	06/1995
	CN	5,716,785	02/1998	Van Gelder	435	6	04/1996
	CO	5,723,290	03/1998	Eberwine	435	6	11/1994
	CP	5,750,015	05/1998	Soane et al	204	454	03/1996
	CQ	5,753,439	05/1998	Smith	435	6	05/1995
	CR	5,783,391	07/1998	Rossi	435	6	07/1995
	CS	5,789,167	08/1998	Konrad	435	6	02/1996
	CT	5,849,486	12/1998	Heller et al.	435	6	09/1995
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	CW	5,876,932	03/1999	Fischer	435	6	05/1996
	CX	5,965,452	10/1999	Kovacs	436	149	07/1996
	CY	5,968,784	10/1999	Spinella	435	91.1	01/1997

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	DA	5,981,190	11/1999	Israel	435	6	01/1998
	DB	5,994,076	11/1999	Chenchik	435	6	05/1997
	DC	6,004,755	12/1999	Wang	435	6	04/1998
	DD	6,013,431	01/2000	Soderlund	435	5	12/1993
	DE	6,017,696	01/2000	Heller	435	6	07/1994
	DF	6,027,923	02/2000	Wallace	435	91.2	04/1997
	DG	6,040,138	03/2000	Lockhart	435	6	09/1995
	DH	6,048,690	04/2000	Heller	435	6	05/1997
	DI	6,051,380	04/2000	Sosnowski	435	6	12/1997
	DJ	6,068,818	05/2000	Ackley	422	50	01/1999
	DK	6,071,394	06/2000	Cheng	204	547	01/1998
	DL	6,099,803	08/2000	Ackley	422	68.1	02/1998
	DM	6,129,828	10/2000	Sheldon, III	204	518	09/1996

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES	TRANSLATION NO
	DN	57087	1987	Yugoslavia (Drmanac)				
	DO	2156074	10/1985	UK (Palva et al.)				
	DP	WO86/03782	07/1986	PCT (Malcolm et al.)				
	DQ	0228075	07/1987	EP (Dattagupta et al.)				
	DR	WO88/08528	11/1988	PCT (Stanbro et al.)				
	DS	WO89/01159	02/1989	PCT (Cornell et al.)				
	DT	WO89/10977	11/1989	PCT (Southern)				
	DU	WO90/01564	02/1990	PCT (Adams et al.)				

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	EA	WO92/04470	03/1992	PCT (Stanley)				
	EB	2247889	03/1992	GB (Stanley)				
	EC	WO93/22678	11/1993	PCT (Hollis)				
	ED	WO95/07363	03/1995	PCT (Konrad)				
	EE	WO96/01836	01/1996	PCT (Heller et al.)				
	EF	WO97/12030	04/1997	PCT				
	EG	WO98/01758	01/1998	PCT (Kovacs)				
	EH	WO98/10273	03/1998	PCT				
	EI	WO98/10277	03/1998	PCT				
	EJ	WO98/51819	11/1998	PCT (Heller et al.)				
	EK	WO99/29711	06/1999	PCT				
	EL	WO99/38612	08/1999	PCT				
	EM	WO99/42558	08/1999	PCT				
	EN	WO99/43853	09/1999	PCT				
	EO	WO00/32744	06/2000	PCT				
	EP	WO00/37163	06/2000	PCT				
	EQ	WO00/58522	10/2000	PCT				
	ER	WO00/60919	10/2000	PCT				
	ES	WO00/61720	10/2000	PCT				
	ET	WO00/61803	10/2000	PCT				
	EU	WO00/61805	10/2000	PCT				
	EV	WO00/61816	10/2000	PCT				

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	FA	WO0061817	10/2000	PCT				
	FB	WO0061818	10/2000	PCT				
	FC	WO0062036	10/2000	PCT				
	FD	EP 1 043 405 A2	10/2000	EPO				
	FE	WO0106496 A1	01/2001	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
	FF	Abrams et al. "Comprehensive Detection of Single Base Changes In Human Genomic DNA Using Denaturing Gradient Gel Electrophoresis & a GC Clamp". *Genomics*, 7, 1990, 463-475
	FG	Anand and Southern "Pulsed Field Gel Electrophoresis," Gel Electrophoresis of Nucleic Acids - A Practical Approach, 2d. Ed., D. Rickwood and B.D. Hames (New York:IRL Press 1990), pp 101-123
	FH	Anderson and Young, "Quantitative Filter Hybridization," Nucleic Acid Hybridization - A Practical Approach, Eds. B.D. Hames and S.J. Higgins (Washington, D.C. :IRL Press 1985) pp 73-111
	FI	Bains, "Setting a Sequence to Sequence a Sequence," Bio/Technology, 10:757-758 (1992)
	FJ	Barinaga, "Will 'DNA Chip' Speed Genome Initiative?", Science, 253:1489 (1991)
	FK	Beattie et al., "Genosensor Technology," The 1992 San Diego Conference: Genetic Recognition, pp 1-5 (Nov, 1992)
	FL	Beltz et al., "Isolation of Multigene Families and Determination of Homologies by Filter Hybridization Methods," Methods in Enzymology, 100:266-285 (1983)
	FM	Brown et al. "Electrochemically Induced Adsorption of Radio-Labelled DNA on Gold and HOPG Substrates for STM Investigations". *Ultramicroscopy*, 38, 1991, 253-264
	FN	Conner et al., "Detection of Sickle Cell β^3-Globin Allele by Hybridization With Synthetic Oligonucleotides," Proc. Natl. Acad. Sci. USA, 80:278-282 (1983)
	FO	DeRisi et al., "Use of a cDNA Microarray to Analyse Gene Expression Patterns in Human Cancer", Nature Genetics 14: 457-460 (1996)
	FP	Drmanac et al., "DNA Sequence Determination by Hybridixation: A Strategy for Efficeint Large-Scale Sequencing," Science, 260: 1649-1652 (1993)
	FQ	Drmanac et al., "Sequencing of Megabase Plus DNA by Hybridization: Theory of the Method," Genomics, 4:114-128 (1989)
	FR	Eggers et al. "Biochip Technology Development", BioChip Technology Development, Lincoln Laboratory Technical Report 901, Nov. 9, 1990
	FS	Fiaccabrino et al., "Array of Individually Addressable Microelectrodes", Sensors and Actuators B, 18-19 (1994) 675-677

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		OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)
	GA	Fodor et al., "Light-Directed, Spatially Addressable Parallel Chemical Synthesis," Science, 251:767-773 (1992)
	GB	Fodor et al., "Multiplexed Biochemical Assays With Biological Chips," Nature, 364:555-556 (1993)
	GC	Higuchi et al., "Simultaneous Amplification and Detection of Specific DNA Sequences", Bio/Technology, 10: 413-417 (1992)
	GD	Holland et al., "Detection of Specific Polymerase Chain Reaction Product by Utilizing the 5' → 3' Exonuclease Activity of *Thermus Aquaticus* DNA Polymerase", Proc. Natl. Acad. Sci. USA, 88: 7276-7280 (1991)
	GE	Horejsi et al., "Determination of Dissociation Constants of Lectin Sugar Complexes by Means of Affinity Electrophoresis, Biochimica at Biophysica Acta, 499:200-300 (1977)
	GF	Horejsi, "Some Theoretical Aspects of Affinity Electrophoresis," Journal of Chromatography, 178:1-13 (1979)
	GG	Hubank et al., "Identifying Differences in mRNA Expression by Representational Difference Analysis of cDNA", Nucleic Acids Research, 22: 5640-5648 (1994)
	GH	Kakerow et al., "A Monolithic Sensor Array of Individually Addressable Microelectrodes", Sensors and Actuators A, 43 (1994) 296-301
	GI	Lee et al., "Allelic Discrimination by Nick-Translation PCR With Fluorogenic Probes", Nucleic Acids Research, 21: 3761-3766 (1993)
	GJ	Liang et al., "Differential Display of Eukaryotic Messenger RNA by Means of the Polymerase Chain Reaction", Science, 257: 967-971 (1992)
	GK	Mathews, Kricka. "Analytical Strategies For The Use Of DNA Probes". *Analytical Biochemistry*, 169, 1988, 1-25
	GL	Palecek. "New Trends in Electrochemical Analysis of Nucleic Acids". *Bioelectrochemistry and Bioenergetics*, 20, 1988, 179-194
	GM	Ranki et al., "Sandwich Hybridization as a Convenient Method for the Detection of Nucleic Acids in Crude Samples," Gene, 21:77-85 (1983)
	GN	Saiki, "Amplification of Genomic DNA," PCR Protocols: A Guide to Methods and Applications, (Academic Press, Inc. 1990), pp 13-20
	GO	Schena et al., "Quantitative Monitoring of Gene Expression Patterns with a Complementary DNA Microarray," Science, 270: 467-470 (1995)
	GP	Scott et al., "Activation of Mouse Genese in Transformed Cells", Cell, 34: 557-567 (1983)
	GQ	Southern et al., "Analyzing and Comparing Nucleic Acid Sequences by Hybridization to Arrays of Oligonucleotides Evaluation Using Experimental Models," Genomics, 13:1008-1017 (1992)
	GR	Strezoska et al., "DNA Sequencing by Hybridization: 100 Bases Read by a Non-Gel-Based Method", Proc. Natl. Acad. Sci. USA, 88:10089-93 (1991)
	GS	Velculescu et al., "Serial Analysis of Gene Expression", Science, 270: 484-487 (1995)
	GT	Wallace et al., "Hybridization of Synthetic Oligodexribonucleotides to □ x 174 DNA: The Effect of Single Base Pair Mismatch," Nucleic Acid Res., 6:3543-3557 (1979)

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)		
	HA	Washizu and Kurosawa, "Electrostatic Manipulation of DNA in Microfabricated Structures," IEEE Transactions on Industry Applications, 26:1165-1172 (1990)
	HB	Washizu, "Electrostatic Manipulatiaon of Biological Objects," Journal of Electrostatics, 25:109-123 (1990)
	HC	Zhao et al., "High-Density cDNA Filter Analysis: A Novel Approach For Large-Scale, Quantitative Analysis of Gene Expression", Gene, 156: 207-213 (1995)

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